

IN THE SPECIFICATION

Please replace the paragraph beginning at page 2, line 28 with the following amended paragraph:

The invention, in another aspect, provides a method for producing an ophthalmic lens, preferably a customized contact lens or a contact lens having a complex surface design. The method comprises: providing a lens design of a contact lens having a central axis, an anterior surface and an opposite posterior surface; projecting a predetermined number of points within a predetermined tolerance onto a surface of the lens design along each of a desired number of evenly-spaced semi-diameter spokes, each spoke radiating outwardly from the central axis; for each of the spokes, generating a semi-meridian which is continuous in first derivative and includes a series of arcs and optionally straight lines, wherein each arc is defined by fitting at least three consecutive points into a spherical mathematical function, wherein each of the straight lines is obtained by connecting at least three consecutive points; generating a data file containing information about the geometry of the lens in a form that is ~~interpretable~~ interpretable by a computer-controlled manufacturing device; and producing the contact lens or a molding tool for making the contact lens using the computer-controlled manufacturing device.

Please replace the paragraph beginning at page 8, line 3 with the following amended paragraph:

After converting a desired lens design to a geometry of a contact lens to be produced in a manufacturing system, a data file is generated to contain information about the geometry of the lens in a form that is ~~interpretable~~ interpretable by a computer-controlled manufacturing device.

Please replace the paragraph beginning at page 8, line 7 with the following amended paragraph:

In another embodiment, the present invention provides a method for producing an ophthalmic lens, preferably a customized contact lens or a contact lens having a complex surface design. The production method comprises: providing a lens design of a contact lens having a central axis, an anterior surface and an opposite posterior surface; projecting a predetermined number of points within a predetermined tolerance onto a surface of the lens design along each of a number of evenly-spaced semi-diameter spokes, each spoke radiating outwardly from the central axis; for each of the spokes, generating a semi-meridian which is continuous in first derivative and includes a series of arcs and optionally straight lines, wherein each arc is defined by fitting at least three consecutive points into a spherical mathematical function, wherein each of the straight lines is obtained by connecting at least three consecutive points; generating a data file containing information about the geometry of the lens in a form that is ~~interpretable~~ interpretable by a computer-controlled manufacturing device; and producing the contact lens or a molding tool for making the contact lens using the computer-controlled manufacturing device.

Please replace the paragraph beginning at page 8, line 30 with the following amended paragraph:

A data file containing information about the geometry of the lens in a form that is ~~interpretable~~ interpretable by a computer-controlled manufacturing device can be generated to conform with the specification of a numerically controlled lathe. For example, a zero semi-meridian is required to be generated before the Variform can perform a non-symmetric cutting pass. The zero semi-meridian is based on the average height of each of the other meridians at each radial location. The zero semi-meridian gives the Variform a zero position on which it can base its oscillation calculations. Then, a mini-file is created which includes both the information for the header and the geometry of the lens in a form that can be interpreted by the lathe. Each of semi-

meridians has a number of zones or arcs. Since all semi-meridians must have the same number of zones, zero diameter arcs can be created or last zone is copy for a number of time to equalize the numbers of zones for all meridians. After the file is complete, it can be loaded into the lathe and run to produce a contact lens.